

APPENDIX A  
PENDING CLAIMS

1. (as filed) An isolated nucleic acid comprising a polynucleotide sequence associated with the senescence of a cell, said polynucleotide sequence encoding a protein that specifically binds to antibodies raised against a protein encoded by SEQ ID NO:1.
2. (as filed) The isolated nucleic acid of claim 1 wherein the sequence has at least 85% sequence identity with SEQ ID NO:1.
3. (as filed) The isolated nucleic acid of claim 1 wherein the sequence has at least 95% sequence identity with SEQ ID NO:1.
6. (as filed) An isolated nucleic acid comprising a polynucleotide sequence associated with the senescence of a cell, said polynucleotide sequence being at least about 80% identical to a nucleic acid sequence as set forth in SEQ. ID. NO.:1 over a region at least about 32 nucleotides in length when compared using the BLASTIN algorithm with a Wordlength (W) of 11, M=5, Cutoff=100 and N=-4.
7. (once amended) An isolated nucleic acid comprising a polynucleotide sequence associated with the senescence of a cell, wherein said polynucleotide sequence hybridizes to a nucleic acid having a sequence as set forth in SEQ. ID. NO:1 under stringent conditions, which comprise hybridization in a solution comprising 50% formamide at 42°C and washing in a solution comprising 0.2x SSC wash at 65°C.
8. (as filed) An isolated nucleic acid comprising a polynucleotide sequence associated with G0-arrested cells, said polynucleotide sequence encoding a protein that specifically binds to antibodies raised against a protein encoded by SEQ ID NO:2.

9. (as filed) The isolated nucleic acid of claim 8 wherein the sequence has at least 85% sequence identity with SEQ ID NO:2.

10. (as filed) The isolated nucleic acid of claim 8 wherein the sequence has at least 95% sequence identity with SEQ ID NO:2.

11. (as filed) An isolated protein which is encoded by the nucleic acid sequence in claim 8.

29. (once amended) A kit for detecting whether a cell is undergoing senescence, said kit comprising:  
a probe which comprises a polynucleotide sequence selected from the group consisting of SEQ ID NO:1, 2, 38, 55, 61, 67, 69, 70, and 73; and  
a label for detecting the presence of said probe.

31. (as filed) The kit in accordance with claim 29 further comprising a plurality of probes each of which comprises a polynucleotide sequence associated with senescence; and  
a label for detecting the presence of said plurality of probes.

32. (as filed) The kit in accordance with claim 31 wherein said probes are immobilized on a solid support.

33. (as filed) The kit in accordance with claim 29 wherein said solid support is a chip.

38. (once amended) A kit for detecting whether a cell is G0-arrested, said kit comprising:

a probe which comprises a polynucleotide sequence selected from the group consisting of SEQ ID NO:1, 2, 38, 55, 61, 67, 69, 70, and 73; and  
a label for detecting the presence of said probe.

55. (once amended) A kit for detecting whether a fibroblast cell is aging, said kit comprising:

a probe which comprises a polynucleotide sequence selected from the group consisting of SEQ ID NO:1, 2, 38, 55, 61, 67, 69, 70, and 73; and  
a label for detecting the presence of said probe.

62. (once amended) A kit for detecting whether a skin cell is aging, said kit comprising:

a probe which comprises a polynucleotide sequence selected from the group consisting of SEQ ID NO:1, 2, 38, 55, 61, 67, 69, 70, and 73; and  
a label for detecting the presence of said probe.